

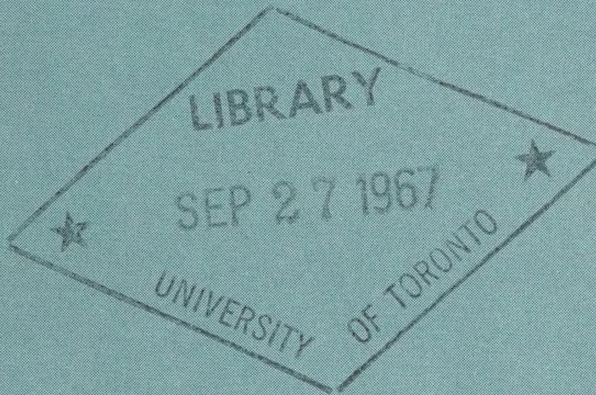
CA 1 DA 37-67M15

CA 1 DA 37
-67M15

Government
Publications



General publications



16-93

MAP OF PLANT HARDINESS ZONES IN CANADA

C.E. Ouellet
Agrometeorology Section
and
Lawrence C. Sherk
Ornamental Plant Section

Plant Research Institute
Research Branch
Central Experimental Farm
Ottawa, Ontario

Information division

CANADA DEPARTMENT OF AGRICULTURE 1967

DEPOSITORY LIBRARY MATERIAL

HARDINESS ZONES IN CANADA

This map, in two sections, one for the eastern half of Canada and one for the western half, shows the areas of winter hardiness for ornamental plants in the most heavily populated areas of Canada. The map is based on a formula that takes into consideration several meteorological factors affecting the hardiness of a plant in a given location. The most important element in plant survival is the minimum temperature during the winter. Other important considerations are the length of the frost-free period, summer rainfall, maximum temperatures, snow cover and wind.

The hardiness areas have been divided into 10 zones. The one marked 0 is the coldest. Other zones are progressively milder, to 9 which is the mildest. A given zone on this map corresponds only approximately to a zone of the same number in the United States Department of Agriculture Plant Hardiness Zone Map, which has been in use in Canada for a number of years. This present map, however, presents more detail for Canada. Each zone has been subdivided into a light and a dark section to represent, respectively, the milder and colder portions of the zone. The list below contains representative plants that normally survive in each zone. Users should locate their own area on the map and so establish the zone in which the plants are to be grown. Sometimes, even though older plants are hardy, young plants of many species may be tender and need protection the first winter.

Small areas with peculiar microclimates often exist within a zone. These areas are colder or milder than the surrounding area. They are usually too small to locate on the hardiness map or they may not have been recorded. In addition, sharp changes in elevation, as found in mountainous or hilly regions, cause a difference in climate that cannot be accurately indicated on the map. The user should also remember that the zone lines are arbitrarily drawn and that the zones merge gradually into each other. Consequently, conditions near the border of one zone may closely approximate those of an adjacent zone.

Hardiness zones for most of the more common shrubs in cultivation in Canada are given in the Canada Department of Agriculture Publication 1285, *Ornamental Shrubs for Canada*, which also contains this map. Hardiness zones for trees are given in *A Checklist of Ornamental Trees for Canada*, also published by the Canada Department of Agriculture.

Plant Research Institute, Research Branch, Canada Department of Agriculture, Ottawa, Ontario.

INDICATOR SHRUBS

- Zone 9a *Cryptomeria japonica* "Elegans" Plum tree
Laurus nobilis "Sweet bay, laurel"
Pieris forestii "Chinese pieris"
8 *Aucuba japonica* "Japanese aucuba"
Pernettya mucronata "Chilean pernettya"
Viburnum tinus "Laurestinus"
7 *Buxus sempervirens* "English box"
Hypericum hookerianum "Hidcote"
Prunus laurocerasus "Cherry-laurel"
6 *Acer palmatum* "Japanese maple"
Deutzia gracilis "Slender deutzia"
Forsythia X intermedia "Spectabilis" Showy forsythia
5 *Cotinus coggygria* "Smokebush"
Forsythia ovata "Early forsythia"
Viburnum carlesii "Fragrant viburnum"
4 *Hydrangea paniculata* "Grandiflora" "Peegee hydrangea"
Philadelphus 'Bouquet Blanc' "Bouquet Blanc mock-orange"
3 *Taxus cuspidata* "Japanese yew"
Eucryphia alata "Winged spindle tree"
Rhus typhina "Staghorn sumac"
2 *Sorbus X vanhouttei* "Vanhoutte spirea"
Caragana arborescens "Siberian peashrub"
Cornus alba "Siberica" "Siberian dogwood"
1 *Cotoneaster integerrima* "European cotoneaster"
Amelanchier alnifolia "Saskatoon"
Cotoneaster lucida "Hedge cotoneaster"
Pinus mugo mughus "Mugo pine"

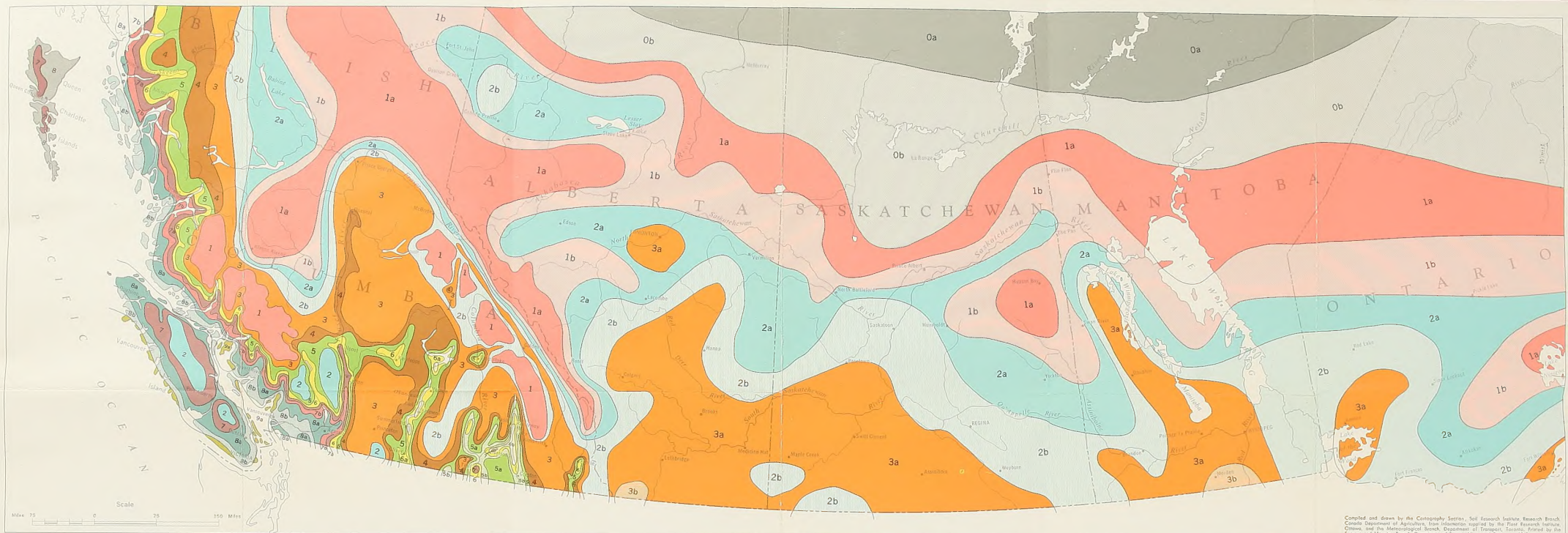
HARDINESS OF SOME TREES

- Acer platanoides* "Norway maple"
Aesculus glabra "Ohio buckeye"
Aesculus hippocastanum "Horse-chestnut"
Alnus incana "Tree of heaven"
Arbutus menziesii "Pacific madrone"
Betula pendula "European birch"
Celtis occidentalis "Hackberry"
Cercis canadensis "Redbud"
Cladonia lutea "Yellowwood"
Cornus florida "Flowering dogwood"
Cornus nuttallii "Pacific dogwood"
Davida involuta "Dove tree"
Fagus sylvatica "European beech"
Fraxinus americana "White ash"
Ginkgo biloba "Maidenhair tree"
Juglans nigra "Black walnut"
Laburnum X watereri "Goldenchain"
Liquidambar styraciflua "Sweet gum"
Magnolia grandiflora "Southern magnolia"
Paulownia tomentosa "Royal paulownia"
Picea glauca "White spruce"
Quercus robur "English oak"
Robinia pseudoacacia "Black locust"
Salix pentandra "Laurel willow"
Tilia cordata "Littletree linden"
Ulmus americana "American elm"
Ulmus glabra "Scotch elm"

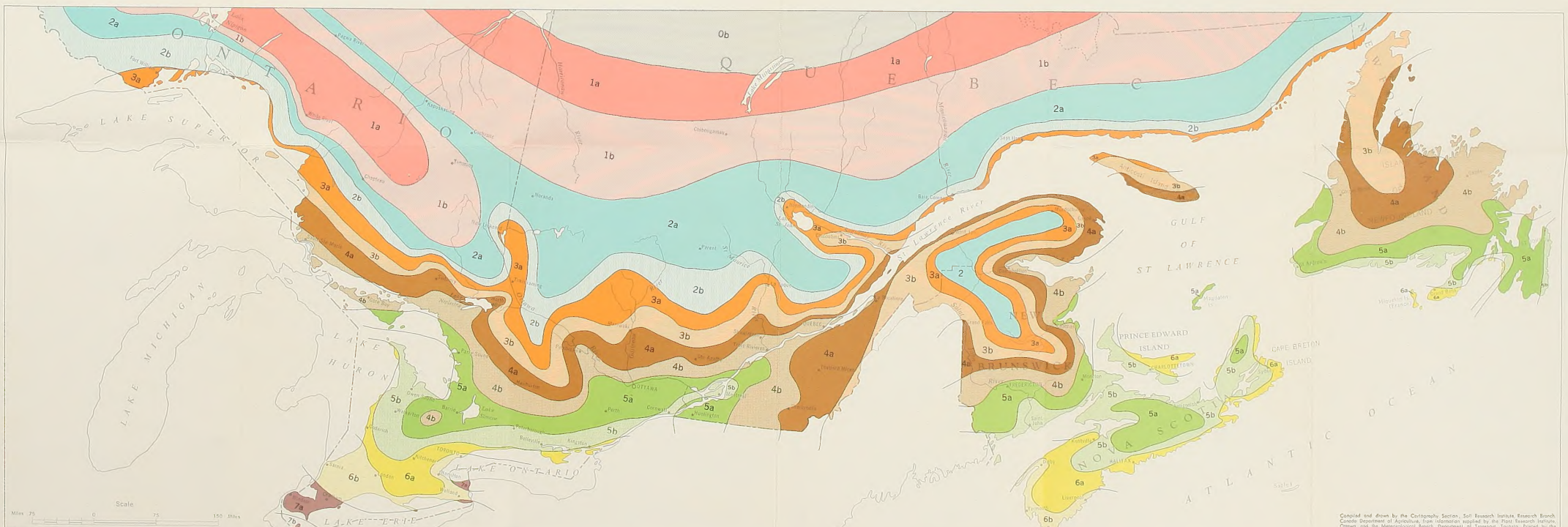
LEGEND

Note: Solid tint indicates colder part, lighter tint of same color indicates milder part.

ZONE		ZONE	
0	0a	5	5a
	0b		5b
1	1a	6	6a
	1b		6b
2	2a	7	7a
	2b		7b
3	3a	8	8a
	3b		8b
4	4a	9	9a
	4b		



Compiled and drawn by the Cartography Section, Soil Research Institute, Research Branch, Canada Department of Agriculture, from information supplied by the Plant Research Institute, Ottawa, and the Meteorological Branch, Department of Transport, Toronto. Printed by the Survey and Mapping Branch, Department of Energy, Mines and Resources, 1947.



Compiled and drawn by the Cartography Section, Soil Research Institute, Research Branch, Canada Department of Agriculture, from information supplied by the Plant Research Institute, Ottawa, and the Meteorological Branch, Department of Transport, Toronto. Printed by the Survey and Mapping Branch, Department of Energy, Mines and Resources, 1947.

3 1761 11551713 8



Copies of this publication may be obtained from:
INFORMATION DIVISION
CANADA DEPARTMENT OF AGRICULTURE
OTTAWA